

SPECIFICATION AMENDMENTS

Please replace paragraph [0001] of the published version of the specification with the following rewritten paragraph:

[0001] The invention relates to a receiving method for the contactless reception of identification information, which has been stored in a data carrier and which can be transferred from the data carrier in a contactless manner in the form of information units to a communication device and can be received with the communication device, said ~~The receiving method having the steps presented in the following, namely~~includes receiving an information unit and detecting that the information unit received represents a collision of two different information units occurring essentially simultaneously, and of which two different information units the first information unit originates from a first data carrier and the second information unit originates from a second data carrier.

Please replace paragraph [0004] of the published version of the specification with the following rewritten paragraph:

[0004] The invention further relates to a communication device circuit for a communication device, said communication device being designed for contactless communication with a data carrier, and in which data carrier identification information is stored, which can be received from the data carrier in a contactless manner in the form of information ~~units, units, wherein~~units, wherein First receiving means are

provided, ~~which are designed~~ for contactless reception of an information unit, and ~~wherein~~ collision detection means are provided, ~~which are designed~~ for detecting that the received information unit represents a collision of two different information units occurring essentially simultaneously, and of which two different information units the one information unit originates from a first data carrier and the other information unit originates from a second data carrier.

Please replace paragraph [0009] of the published version of the specification with the following rewritten paragraph:

[0009] Such a receiving method, ~~of the type presented in the first paragraph at the beginning and said method of delivery, of the type presented in the second paragraph at the beginning and said anti-collision method, of the type presented in the third paragraph at the beginning and said communication device circuit, of the type presented in the fourth paragraph at the beginning and said communication device, of the type presented in the fifth paragraph at the beginning and said data carrier circuit, of the type presented in the sixth paragraph at the beginning and said data carrier, of the type presented in the seventh paragraph at the beginning and said communication system of the type presented in the eighth paragraph at the beginning~~ are known from patent document U.S. Pat. No. 5,761,570.

Please replace paragraph [0010] of the published version of the specification with the following rewritten paragraph:

[0010] In the known communication system, by means of which the known anti-collision method can be carried out, it is envisaged that an information unit is received at the communication device, in which In said anti-collision method, the known receiving method can be carried out by means of the known communication device, which has the known communication device circuit-circuit, and in which anti-collision method the known method of delivery can be carried out by means of the known data carrier, which has the known data carrier circuit, it is envisaged that an information unit is received at the communication device. On the basis of the received information unit it is then detected, if appropriate, that the received information unit represents a collision of two different information units occurring essentially simultaneously, and of these two different information units, the one information unit originates from a first ~~such~~ known data carrier and the other information unit originates from a second ~~such~~ known data carrier. A ~~so-called~~ collision is thus detected in this case of operation.

Please replace paragraph [0011] of the published version of the specification with the following rewritten paragraph:

[0011] In the known communication system, there is the problem that, after detection of a collision of information units occurring essentially simultaneously, ~~but being different from one another,~~ a display signal ~~which is only provided for displaying this collision,~~ is delivered from the communication device by means of a carrier signal generated in and delivered by the communication device. The display signal can be received and processed by the at least two data carriers. In this connection, there is the additional problem that the display signal received with the data carrier is used for complete termination of delivery of the colliding identification information and that the further delivery of identification information can be resumed at the earliest only after expiry of a calculated time interval using a random number. After this time interval has elapsed, complete identification information is delivered again, from the data carrier for which the shortest time interval was calculated. To avoid causing a collision again during this delivery of the identification information, the communication device must deliver a further signal, namely a so-called "busy signal", shortly after beginning again to receive information units of the identification information, so that all other remaining data carriers remain silent, until they again receive queries regarding their identification information, after the identification information of the data carrier favored by the shortest time interval has been transmitted completely. After that, the remaining data carriers again begin transmitting their identification information

simultaneously ~~if applicable~~, until a collision is detected again and a data carrier has been selected again from the group of remaining data carriers by calculating the shortest time interval from this group. This method, which is generally known as an anti-collision method or inventory technique, is repeated until all data carriers have delivered their identification information completely and in particular without occurrence of a collision. In this case, there is the problem that calculation of said random number is time-consuming and appropriate means are required in the data carrier. Furthermore, said data carrier and said communication device are in practice unsuitable for applications in which a relatively large number of said data carriers are accommodated practically simultaneously within a communication zone of the communication device and the identification information from all data carriers must be detected as quickly as possible. In said application, the time-consuming process of waiting for expiry of the time interval and the subsequent repeat delivery of the complete identification information are disadvantageous, because quick and efficient transmission of all identification information to the communication device is simply not possible.

Please replace paragraph [0012] of the published version of the specification with the following rewritten paragraph:

[0012] It is an object of the invention to avoid the problems described above in said a receiving method, ~~of the type presented in the first paragraph at the beginning~~ and said method of delivery, ~~of the type presented in the second paragraph at the beginning~~ and said anti-collision method, ~~of the type presented in the third paragraph at the beginning~~ and said communication device circuit, ~~of the type presented in the fourth paragraph at the beginning~~ and said communication device, ~~of the type presented in the fifth paragraph at the beginning~~ and said data carrier circuit, ~~of the type presented in the sixth paragraph at the beginning~~ and said data carrier, ~~of the type presented in the seventh paragraph at the beginning~~ and said communication system, ~~of the type presented in the eighth paragraph at the beginning~~ and to create an improved receiving method, ~~and an improved method of delivery,~~ ~~and an improved anti-collision method,~~ ~~and an improved communication device circuit,~~ ~~and an improved communication device,~~ ~~and an improved data carrier circuit,~~ ~~and an improved data carrier,~~ and an improved communication system.

Please replace paragraph [0014] of the published version of the specification with the following rewritten paragraph:

[0014] A receiving method for contactless reception of identification information ~~which is stored in a data carrier and which can be transferred from the data carrier~~ in a contactless manner in the form of information units, to a communication device and can be received with the communication device, said receiving method ~~having the steps presented below, namely comprising~~ reception of an information unit, ~~and detection that the received information unit represents a collision of two different information units occurring essentially simultaneously, and of which, two different information units~~ the first information unit originates from a first data carrier and the second information unit originates from a second data carrier, ~~and~~ replacing the received information unit with a first replacement information unit established by the communication device, which is used instead of the information unit representing the collision, as the information unit that originates from the first data carrier, and delivery of the first replacement information unit in a contactless manner.

Please replace paragraph [0015] of the published version of the specification with the following rewritten paragraph:

[0015] To solve the problem presented above, ~~in a method of delivery according to the invention features according to the invention are~~ is provided, ~~so that a method of delivery according to the invention can be characterized as follows:~~

Please replace paragraph [0016] of the published version of the specification with the following rewritten paragraph:

[0016] Method of delivery for the contactless delivery of identification information, which identification information is stored in a data carrier and can be delivered in a contactless manner in the form of information units from the data carrier to a communication device, said method of delivery ~~having the steps listed below, namely comprising:~~ delivery of delivering an information unit, and checking, whether, after delivery of the information unit, if a first replacement information unit established by the communication device can be ~~is~~ received from the communication device, and continuation of delivery of the identification information with the information unit following the information unit previously transmitted to the communication device, if either no established first replacement information unit is received from the communication device or a first replacement information unit established by the communication device is received and the

received-~~established~~ first replacement information unit is identical to ~~with~~ the information unit previously transmitted to the communication device.

Please replace paragraph [0017] of the published version of the specification with the following rewritten paragraph:

[0017] To solve the problem described above, in an anti-collision method according to the invention, it is envisaged that the anti-collision method ~~according to the invention~~ comprises asaid receiving method ~~according to the invention~~ and asaid method of delivery ~~according to the invention~~.

Please replace paragraph [0018] of the published version of the specification with the following rewritten paragraph:

[0018] To solve the problem described above, in a communication device circuit according to the invention, ~~features according to the invention are provided, so that a communication device circuit according to the invention~~ can be characterized as follows:

Please replace paragraph [0019] of the published version of the specification with the following rewritten paragraph:

[0019] A communication device circuit for a communication device, said communication device being designed for contactless communication with a data carrier, ~~and in which data carrier storing~~ identification information is stored, ~~which that~~ can be received from the data carrier in a contactless manner in the form of information ~~units, units~~, Said communication device circuit comprising: first receiving means ~~being provided, which are designed~~ for contactless reception of an information unit, ~~and collision detection means being provided, which are designed~~ for detecting ~~that when~~ the received information unit represents a collision of two different information units occurring essentially simultaneously, ~~and of which two different information units, the with~~ one information unit ~~originatinges~~ from a first data carrier, and the other information unit ~~originatinges~~ from a second data carrier, ~~and wherein replacing means are provided, which are designed~~ for replacing the received information unit with a first replacement information unit established by the communication device, said first replacement information unit serving as the information unit that originates from the first data carrier instead of the information unit representing the collision, and ~~wherein transmitting means are provided, which are designed~~ for contactless delivery of the established first replacement information unit.

Please replace paragraph [0020] of the published version of the specification with the following rewritten paragraph:

[0020] To solve the problem described above, in a communication device ~~according to the invention,~~ a communication device circuit according to the invention is provided.

Please replace paragraph [0021] of the published version of the specification with the following rewritten paragraph:

[0021] To solve the problem described above, ~~in a data carrier circuit according to the invention, features according to the invention are~~ provided, ~~so that a data carrier circuit according to the invention can be~~ characterized as follows:

Please replace paragraph [0022] of the published version of the specification with the following rewritten paragraph:

[0022] Data carrier circuit for a data carrier, ~~said data carrier being designed for contactless communication with a communication device, and in which said data carrier storing~~ identification information ~~is stored which~~ can be transmitted from the data carrier in a contactless manner in the form of information units to the communication device, comprising: ~~and second transmitting means are provided,~~

~~which are designed for delivery of an information unit in a contactless manner, and~~
~~checking means are provided which are designed for checking whether, after~~
~~delivery of the information unit, if a first replacement information unit established~~
~~by the communication device can be~~ received from the communication device, ~~and~~
~~the second transmitting means are provided for continuing delivery of the~~
~~identification information with the information unit following the information unit~~
~~previously transmitted to the communication device, if it is established at the~~
~~checking means~~ establishes that either no ~~established~~ first replacement information
unit is received from the communication device or a first replacement information
unit ~~established by the communication device~~ is received and the received
~~established~~ first replacement information unit is identical with the information unit
previously transmitted to the communication device.

Please replace paragraph [0023] of the published version of the specification
with the following rewritten paragraph:

[0023] To solve the problem described above, ~~with a data carrier according to the~~
~~invention, comprising~~ a data carrier circuit according to the invention is provided.

Please replace paragraph [0024] of the published version of the specification with the following rewritten paragraph:

[0024] To solve the problem described above, a communication system according to the invention is provided comprising with a communication device according to the invention, ~~which has~~ comprising a communication device circuit according to the invention, and at least one data carrier according to the invention, which ~~has~~ comprising a data carrier circuit according to the invention.

Please replace paragraph [0025] of the published version of the specification with the following rewritten paragraph:

[0025] By providing the measures according to the invention, the advantage is obtained that a collision of different information units is managed by a prompt selection from a first data carrier or a group of first data carriers, so that from the selected first data carrier or from the group of selected first data carriers, the next information unit provided for delivery to the communication device can be transmitted practically without time loss and becomes available for processing in the communication device practically without notable delay despite the previously occurring detection of a collision.

Please replace paragraph [0026] of the published version of the specification with the following rewritten paragraph:

[0026] ~~In a solution according to the invention, it has proved advantageous if in addition, the measures according to claim 2, or claim 6, or claim 10, or claim 15 are provided. The~~Using a further embodiment, the resulting advantage is obtained that at least in a second data carrier or even a group of second data carriers, whose information unit was involved in the collision, suspension of delivery of information units of the respective identification information is effected by means of the first replacement information unit established and delivered in the communication device, without expensive two-way communication with the communication device. Moreover, in the communication device, the resulting advantage is obtained that a time-consuming subsequent repeated reception of each information unit already received collision-free is avoided, because each information unit already temporarily stored is used for completing the identification information originating from one of the second data carriers. As a result, ~~moreover~~, in the data carrier, the advantage is obtained that delivery of the identification information can be continued at a later time without repeating an information unit already transmitted at a precisely defined position within the identification information.

Please replace paragraph [0027] of the published version of the specification with the following rewritten paragraph:

[0027] ~~In a solution according to the invention it has further proved advantageous if in addition the measures according to claim 3 or claim 11 are provided. As a result~~Using a further embodiment, the advantage is obtained that the information unit involved in the collision and originating from at least one second data carrier is not lost, but is used immediately for replacing the received information unit representing the collision, so that at a later time, only the information units of the second data carrier that have actually not yet been transmitted still have to be received.

Please replace paragraph [0028] of the published version of the specification with the following rewritten paragraph:

[0028] ~~In a solution according to the invention it has further proved advantageous if in addition the measures according to claim 4 or claim 7 or claim 12 or claim 16 are provided. As a result~~Using a further embodiment, the advantage is obtained that a maximally efficient delivery of information units of a second data carrier is ensured, said second data carrier not having previously been selected by the first replacement information unit established in the communication device and transmitted from it, and at a time defined by the communication device and without

the need for repeat transmission of the information units from this second data carrier. As a result, ~~moreover~~, the advantage is obtained that each data carrier involved in the collision, i.e. both a first data carrier and a second data carrier, only has to deliver all information units of the respective identification information a single time.

Please replace paragraph [0029] of the published version of the specification with the following rewritten paragraph:

[0029] It should be mentioned that the advantages described in connection with the receiving method and the transmission method are also obtained in further embodiments of an anti-collision method according to the invention ~~according to of claim 8, which comprises the receiving method according to the invention and the transmission method according to the invention.~~ The same applies to a communication device, a communication device circuit, a data carrier, a data carrier circuit, and a communication system including a communication device and a data carrier ~~according to the invention according to claim 13, which has the communication device circuit according to the invention according to one of the claims 9 to 12. The same applies moreover to a data carrier according to the invention according to claim 17, which has the data carrier circuit according to the invention according to one of the claims 14 to 16. The same applies moreover to a~~

~~communication system according to the invention according to claim 18, which has
the previously described communication device according to the invention and at
least one previously described data carrier according to the invention.~~